**MATERIAL SAFETY DATA SHEET**

## 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** ATGARD® C (dichlorvos) Swine Wormer  
**Product No.:** NADA 040-848  
**GHS Product Identifier:** Not applicable  
**Synonyms:** Not available  
**Molecular Formula:** Mixture, not applicable  
**Molecular Weight:** Not applicable  
**CAS Number:** Mixture, not applicable  
**Chemical Family:** Organophosphate ester (active ingredient)

**Manufacturer:**  
Boehringer Ingelheim Vetmedica, Inc.  
2621 North Belt Hwy  
St. Joseph, MO 64506-2002  

**Emergency Telephone:**  
Transportation Emergency: (800) 424-9300  
Medical Emergency (24HR): (866) 638-2226  
Non-emergency Telephone: (800) 821-7467

**Intended Use:** Swine anthelmintic. Effective against whipworms (*Trichuris suis*), nodular worms (*Oesophagostomum* spp.), large roundworms (*Ascaris suum*), and thick stomach worms (*Ascarops strongylina*).

## 2 HAZARDS IDENTIFICATION

**Emergency Overview**

**Physical State:** Solid cylindrical resin pellet-rice size  
**Color:** Clear to light blue  
**Odor:** Mild chemical odor

**WARNING!**  
Contains an ORGANOPHOSPHATE PESTICIDE.  
The additives are encased in a tough plastic matrix-Exposure to Dichlorvos is unlikely.  
Not for human use – FOR SWINE USE ONLY.  
Toxic if swallowed.
Toxic to aquatic life with long lasting effects.

Precautionary Statements:
Keep only in original container.
Keep at a temperature not exceeding 30° C.
Do not eat, drink or smoke while using this product.
Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco.
Wear protective gloves and clothing appropriate for exposure.
Fire-fighting: Use foam, carbon dioxide, dry powder and water fog or material appropriate for surrounding fire.
Spills: Clean up spill immediately. Vacuum spilled material into waste containers. Do NOT wash away into waterways and sewer. Use appropriate containment to avoid environmental contamination. Avoid release to the environment. Dispose of this container to hazardous or special collection point. This material and its container must be disposed of in a safe way.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
If swallowed, seek medical advice immediately and show this container or label. Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Keep out of reach of children.
Keep away from food, drink, and animal feedstuffs except per label instructions.
Do not handle until all safety precautions have been read and understood.

Description:
Atgard® C Swine Wormer is a broad spectrum swine anthelmintic (dewormer) in the form of resin pellets containing the active ingredient dichlorvos. The pellets are covered by a soluble protective coating. Slow release formulation provides superior efficacy and wide margin of safety. No withdrawal. Recommended for swine of all ages including pregnant sows. Requires no withholding of drinking water or fasting. One scoop treats sows of any size. No under-dosing which could decrease effectiveness. No over-dosing which wastes money and decreases safety margin. There is no pre-slaughter withdrawal period when used at the recommended dosage level. Atgard C can be mixed in meal or crumble feeds after crumbles have been manufactured. Do not mix in feeds to be pelleted nor with pelleted feed. When fed the last 30 days of gestation, this product improves litter production efficiency by increasing the number of pigs born alive, birth weights, survival to market, and the rate of weight gain. The user should acquaint himself thoroughly with the contents of the package insert.

Acute effect:
Dichlorvos is a cholinesterase inhibitor. Symptoms of exposure include weakness, tightness in chest, sweating, vomiting, non-reactive pin point pupils, tearing, blurred vision, frequent urination, salivation, headache, mental confusion, nausea, abdominal cramps and diarrhea.

Precautions/Contraindications: Do not use in animals other than swine. Do not mix in feeds to be pelleted nor with pelleted feed. Do not allow fowl access to this feed or to feces from treated animals. Do not soak feed or feed as wet mash. Feed must be fed dry. Do not reuse any of the containers or container materials used in packaging (product). Do not use this product on animals simultaneously or within a few days before or after treatment with or exposure to cholinesterase
inhibiting drugs, pesticides or chemicals. Consult your veterinarian for assistance in the diagnosis, treatment and control of parasitism.

**Overdosage:** ORGANOPHOSPHATE PESTICIDE: Seek Medical or Veterinarian Attention Immediately.

**ADVERSE REACTIONS TO PRODUCT:** Causes reduction in blood cholinesterase levels, leukocytosis, neutrophilia, and a decrease in lymphocytes and monocytes. Can cause pulmonary edema, coma and death.

**Potential Health Effects**

**Inhalation:** Not expected to be an inhalation hazard in final drug preparation form.

**Eye Contact:** Not expected to be an eye hazard in final drug preparation form.

**Skin Contact:** Not expected to be a skin hazard in final drug preparation form.

**Ingestion:** Toxic if swallowed. Call a physician or poison control center immediately.

**Chronic Health Effects:** Chronic effects are not expected from coated drug preparation and when used as directed. Exposure may aggravate other medical conditions. Occasionally a delayed syndrome “OPIDN-Organophosphate-induced delayed neuropathy” may result from organophosphate exposure. Possible Carcinogen.

**Target Organ(s):** Central Nervous System, Cardiovascular System

**Potential Physical Effects:** Headache, sweating, nausea and vomiting, diarrhea, loss of coordination and death for human exposure.

**OSHA Regulatory Status:** Exempt, Regulated as a veterinarian drug in final form.

**Environment:** Marine pollutant

### 3 COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EC No.</th>
<th>CAS- No.</th>
<th>Concentration</th>
<th>Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorvos(21%): 2,2-dichlorovinyl dimethyl phosphate</td>
<td>2005477</td>
<td>62-73-7</td>
<td>9.6%</td>
<td>T+, N, R24/25, R26, R43, R50</td>
<td>----</td>
</tr>
<tr>
<td>Dioctyl phthalate</td>
<td>2042147</td>
<td>117-84-0</td>
<td>proprietary</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Polyvinyl chloride resin</td>
<td>----</td>
<td>9002-86-2</td>
<td>proprietary</td>
<td>----</td>
<td>----</td>
</tr>
</tbody>
</table>

*EC Reference No.*

The full texts for all R-Phrases are displayed in Section 16.
4 FIRST AID MEASURES

General: Animals or persons developing anaphylactic (life-threatening) reactions, such as difficulty in breathing or unconsciousness, must receive immediate medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Eye Contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Call a physician or poison control immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

Note to Physician: For animal use only. Not for human use. Emergency Treatment: Atropine is the specific therapeutic antagonist of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation atropine sulfate should be injected at ten minute intervals, in doses of 1-2 milligrams until complete atropinization has occurred. Morphine, adrenaline or tranquillizers are contraindicated. Pralidoxime chloride (2-PAM chloride) may also be used as an effective antidote in addition to and while maintaining full atropinization. In adults, an initial dose of 1 gram of 2-PAM should be injected, preferable as an infusion of 250 cc of saline over a 15-30 minute period. 2-PAM may also be administered slowly by intravenous injection as 5% solution in water over not less than two minutes. After about an hour, a second dose of 1 gram of 2-PAM will be indicated if muscle weakness has not been relieved. For infants and children the dose of 2-PAM is 0.25 grams.

5 FIRE-FIGHTING MEASURES

Extinguishing Media: Extinguish with foam, carbon dioxide, dry powder and water fog or material appropriate for surrounding fire.

Unsuitable Extinguishing Media: None known

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Unusual Fire & Explosion Hazards: Toxic gases may be generated under fire situations.

Hazardous Combustion Products: Phosphorous oxides, hydrogen chloride, carbon monoxide, and dichlorvos vapor

Flammability Class: 0
6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate personal protective equipment for risk of exposure. See Section 8.

Spill Cleanup Methods: Small Spill: Sweep up and place in a clearly labeled container for waste.
Large Spill: Wear an approved respirator, eye protection, personal protective coverings and gloves. Use HEPA filtered vacuum or wet sweeping to clean up spillage. Place spillage in appropriate container for waste disposal Wash contaminated clothing before use.

Environmental Precautions: Use appropriate containment to avoid environmental contamination. Prevent runoff from entering drains, sewers or streams. Dike for later disposal.

7 HANDLING AND STORAGE

Handling: Do not taste or swallow. Wash hands thoroughly after handling.

Storage: Keep only in the original container. Keep container closed. Do not store unused packet(s) contents or medicated feed. Store at temperatures not exceeding 26.6°C (80°F). Store in a dry place. Store locked up Keep out of reach of children. Keep away from food, drink, and animal feedstuffs except per label instructions.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

For Industrial Exposures:

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Source</th>
<th>Type</th>
<th>Exposure Limits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorvos, Inhalable fraction and vapor</td>
<td>ACGIH</td>
<td>8-HR TWA</td>
<td>.1 mg/m³</td>
<td>Skin designation, sensitizer, cholinergic</td>
</tr>
<tr>
<td>Dichlorvos</td>
<td>OSHA Z-1</td>
<td>PEL</td>
<td>1 mg/ m³</td>
<td>Skin</td>
</tr>
<tr>
<td>Dichlorvos</td>
<td>Alberta</td>
<td>8-HR TWA</td>
<td>.9 mg/ m³</td>
<td>Skin designation</td>
</tr>
<tr>
<td>Dichlorvos (DDVP), Inhalable, vapor and aerosol</td>
<td>British Columbia</td>
<td>8-HR TWA</td>
<td>.1 mg/ m³</td>
<td>Skin designation, capable of causing respiratory, dermal or conjunctival sensitization.</td>
</tr>
<tr>
<td>Dichlorvos (DDVP), Inhalable, vapour and aerosol</td>
<td>Ontario</td>
<td>8-HR TWA</td>
<td>.1 mg/ m³</td>
<td>Can be absorbed through the skin.</td>
</tr>
<tr>
<td>Dichlorvos</td>
<td>Quebec</td>
<td>8-HR TWA</td>
<td>.9 mg/ m³</td>
<td>Skin designation</td>
</tr>
<tr>
<td>DDVP, S. Dichlorvos</td>
<td>Austria</td>
<td>TWA</td>
<td>1 mg/ m³</td>
<td>Special danger of skin absorption</td>
</tr>
<tr>
<td>Substance</td>
<td>Country</td>
<td>Exposure Period</td>
<td>Limit Value</td>
<td>Skin Designation</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------</td>
<td>-----------------</td>
<td>-------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Dichlorvos</td>
<td>Belgium</td>
<td>8-HR TWA</td>
<td>.9 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Dichlorvos</td>
<td>Denmark</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>Substance can be absorbed through the skin</td>
</tr>
<tr>
<td>Diklorvossi</td>
<td>Finland</td>
<td>8-hr limit</td>
<td>1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Dichlorvos</td>
<td>France</td>
<td>TWA (VME)</td>
<td>1 mg/m³</td>
<td>Considered to be a danger of subcutaneous penetration under French Occupational Exposure Limits</td>
</tr>
<tr>
<td>Dichlorvos (ISO)</td>
<td>Germany</td>
<td>Limit Value</td>
<td>1 mg/m³</td>
<td>Skin Indicator: H cutaneous absorption</td>
</tr>
<tr>
<td>Dichlorvos (DDVP)</td>
<td>Greece</td>
<td>8-HR TWA</td>
<td>1 mg/m³</td>
<td>Skin designation</td>
</tr>
<tr>
<td>2,2-Dichlorovinyl dimethyl phosphate</td>
<td>Iceland</td>
<td>8-HR TWA</td>
<td>1 mg/m³</td>
<td>Skin designation</td>
</tr>
<tr>
<td>Diklorvos (ISO)</td>
<td>Ireland</td>
<td>8-HR TWA</td>
<td>1 mg/m³</td>
<td>Irish skin designation</td>
</tr>
<tr>
<td>Dichlorvos (DDVP), Inhalable fraction and vapor</td>
<td>Italy</td>
<td>8-HR TWA</td>
<td>.1 mg/m³</td>
<td>Can be absorbed through the skin</td>
</tr>
<tr>
<td>Dichloorvos</td>
<td>Netherlands</td>
<td>MAC TWA (TGG)</td>
<td>1mg/m³</td>
<td>MAC Danger of cutaneous absorption</td>
</tr>
<tr>
<td>Diklorvos</td>
<td>Norway</td>
<td>TLV</td>
<td>1mg/m³</td>
<td>Skin absorptive substance</td>
</tr>
<tr>
<td>Dichlorvos</td>
<td>Portugal</td>
<td>8-HR Limit</td>
<td>.1mg/m³</td>
<td>Skin absorption possible</td>
</tr>
<tr>
<td>Dichlorvos</td>
<td>Switzerland</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>Skin absorption possible</td>
</tr>
<tr>
<td>Dioctylphthalate (alle isomeren)</td>
<td>Austria</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Phthalater, der ikke er nævnt andet sted i listen</td>
<td>Denmark</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Dialkyl 79 phthalate</td>
<td>Ireland</td>
<td>8-HR TWA</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Ftalaatverbindingen, inhaleerbaar stof</td>
<td>Netherlands</td>
<td>MAC TWA (TGG)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Ftalaatverbindingen, respirabel stof</td>
<td>Netherlands</td>
<td>MAC TWA (TGG)</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Dioctylftalat</td>
<td>Norway</td>
<td>TLV</td>
<td>3 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Ftalater</td>
<td>Sweden</td>
<td>Level</td>
<td>3 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Product Name</td>
<td>Location</td>
<td>Limit Value (NGV)</td>
<td>Limit Value (KTV)</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Ftalater</td>
<td>Sweden</td>
<td>Short Term Limit</td>
<td>5 mg/m³</td>
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<tr>
<td>Polyvinyl chloride resin</td>
<td>OSHA</td>
<td>TWA</td>
<td>1 ppm</td>
<td>Skin hazard; Cancer suspect agent</td>
</tr>
<tr>
<td>Polyvinyl chloride resin</td>
<td>OSHA</td>
<td>Action Level</td>
<td>0.5 ppm</td>
<td>----</td>
</tr>
<tr>
<td>Polyvinyl chloride, total dust</td>
<td>British Columbia</td>
<td>8-HR TWA</td>
<td>5 mg/m³</td>
<td>----</td>
</tr>
<tr>
<td>Polyvinyl chloride (PVC), respirable dust</td>
<td>Ireland</td>
<td>8-HR TWA</td>
<td>4 mg/m³</td>
<td>----</td>
</tr>
<tr>
<td>Polyvinyl chloride (PVC), total inhalable dust</td>
<td>Ireland</td>
<td>8-HR TWA</td>
<td>10 mg/m³</td>
<td>----</td>
</tr>
<tr>
<td>Respirable PVC-Stof</td>
<td>Netherlands</td>
<td>MAC TWA (TGG)</td>
<td>1 mg/m³</td>
<td>----</td>
</tr>
<tr>
<td>Damm, PVC respirabelt damm</td>
<td>Sweden</td>
<td>Level limit value (NGV)</td>
<td>.05 mg/m³</td>
<td>----</td>
</tr>
<tr>
<td>Damm, PVC total damm</td>
<td>Sweden</td>
<td>Level limit value (NGV)</td>
<td>1 mg/m³</td>
<td>----</td>
</tr>
<tr>
<td>Polyvinyl chloride</td>
<td>Switzerland</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>----</td>
</tr>
<tr>
<td>Polyvinyl chloride, inhalable dust</td>
<td>UK</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>----</td>
</tr>
<tr>
<td>Polyvinyl chloride, respirable dust</td>
<td>UK</td>
<td>TWA</td>
<td>4 mg/m³</td>
<td>----</td>
</tr>
</tbody>
</table>

**Engineering Controls:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits, if needed.

**Respiratory Protection:** Not generally required when handling pellets or containers. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear a mask or pesticide respiratory jointly approved by the Mine, Safety and Health Administration and NIOSH and US EPA. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA standard 63 FR 1152, January 8, 1998. Respirator type: NIOSH approved organic vapor respirator.
PERSONAL PROTECTIVE EQUIPMENT: If containers are compromised:

Eye Protection: No special precautionary measures should be needed under anticipated conditions of use.

Hand Protection: Gloves

Skin Protection: No special precautionary measures should be needed under anticipated conditions of use.

Hygiene Measures: Washing facilities

9 PHYSICAL AND CHEMICAL PROPERTIES

Color: Clear or blue
Odor: Mild chemical odor
Odor Threshold: No data available
Physical State: Solid cylindrical resin pellet-rice size
pH: No data available
Melting Point: No data available
Freezing Point: No data available
Boiling Point: No data available
Flash Point: Noncombustible
Flammability Limit – Upper (%): Not applicable
Flammability Limit – Lower (%): Not applicable
Evaporation rate: No data available
Vapor Pressure: No data available
Vapor Density (Air=1): No data available
Specific Gravity: 1.2
Solubility: ~ 1 %
Partition Coefficient (n-Octanol/water): No data available
Autoignition Temperature: Not applicable
Decomposition Temperature: No data available

10 STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Moisture, heat

Incompatible Materials: Strong oxidizing agents, strong acids. Will hydrolyze in water.

Hazardous Decomposition Products: Hydrogen chloride and other toxic fumes

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
11 TOXICOLOGICAL INFORMATION

Specified Substances

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test Results</th>
</tr>
</thead>
</table>
| 2,2-Dichlorovinyl dimethyl ester phosphoric acid | Oral LD$_{50}$ (male rat): 80 mg/kg  
Oral LD$_{50}$ (female rat): 56 mg/kg  
Oral LD$_{50}$ (mouse): 61 mg/kg  
Oral LD$_{50}$ (wild bird species): 12 mg/kg  
Dermal LD$_{50}$ (mouse): 206 mg/kg  
Dermal LD$_{50}$ (rabbit): 205 mg/kg  
Inhalation LC$_{50}$ (rat): 15 mg/m$^3$ 4H  
Inhalation LC$_{50}$ (mouse): 13 mg/m$^3$ 4H |

Teratogenicity: Weakly teratogenic when administered intraperitoneally to rats at dose levels that were maternally toxic. No effects on percent pregnant, number of fetal implants or number of early fetal deaths were observed in female mice exposed with 25 to 50 mg/kg orally or 2 or 8 µg/L by inhalation.

Listed Carcinogens:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorvos</td>
<td>2B</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Polyvinyl chloride resin</td>
<td>Not listed</td>
<td>Not Listed</td>
<td>Cancer-Suspect Agent</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

12 ECOLOGICAL INFORMATION

Ecotoxicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Test Results</th>
</tr>
</thead>
</table>
| 2,2-Dichlorovinyl dimethyl ester phosphoric acid | LC$_{50}$ (fat head minnow): 11.6 mg/L  
LC$_{30}$ (bluegill): .9 mg/L |

Persistence and degradability: Dichlorvos has low persistence in soil. Volatilization from moist soils is expected to be low. Dichlorvos degrades primarily by hydrolysis, with a half-life of approximately 4 days in lakes and rivers.

Mobility in soil: Dichlorvos does not absorb to soil particles and it is unlikely to contaminate groundwater.

Other adverse effects: UV light makes dichlorvos 5-150 times more toxic to aquatic life. Dichlorvos does not significantly bioaccumulate in fish. Dichlorvos is a marine pollutant.

Germany WGK: Dichlorvos: ID No: 632; Class: 3: severely water-endangering
13 DISPOSAL CONSIDERATIONS

**General Information:** Pesticide wastes are toxic. Dispose of in accordance with local, state and federal regulations. Contact State Pesticide, Environmental Control Agency or hazardous waste representative at the nearest EPA Regional Office.

**Disposal Methods:** Dispose according to label instructions. Do not empty into drains; dispose of this material and its container in a safe way. Do not contaminate water, food, or feed by storage disposal.

**Container:** Since emptied containers retain product residue, follow label warnings even after container is emptied. Do not reuse container. Destroy packing materials and container after product has been used.

**RCRA U List:** 1,2-benzenedicarboxylic acid, dioctyl ester: U107.

14 TRANSPORT INFORMATION

*(Dichlorvos is regulated as a veterinarian drug in final form in this formulation; not as a pesticide)*

**DOT:** Not regulated  
**Marine Pollutant:** Severe: Dichlorvos

**TDG:** Not regulated  
**Marine Pollutant:** Severe: Dichlorvos

**ADR/RID:** Not regulated  
**Marine Pollutant:** Severe: Dichlorvos

**IATA:** Not regulated  
**Marine Pollutant:** Severe: Dichlorvos

**IMDG:** Not regulated  
**Marine Pollutant:** Severe: Dichlorvos

15 REGULATORY INFORMATION

**Canadian Controlled Products Regulations:** This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.  
**WHMIS Classification:** Exempt

**Inventory Status**  
This material is not listed on the US TSCA Inventory. Dichlorvos is registered under EPA/FIFRA.  
This material is not listed on the DSL Inventory.
US Regulations

FDA (Food and Drug Administration): Dichlorvos is listed under special provisions and is regulated as an animal drug in this formulation. (CFR Title 21, Volume 6: Subpart B: Specific New Animal Drugs for use in Animal Feeds). No FDA FORM 1900 required.

CERCLA Hazardous Substance List (40 CFR 302.4):

<table>
<thead>
<tr>
<th>Component</th>
<th>Reportable Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorvos</td>
<td>10 lbs.</td>
</tr>
<tr>
<td>1,2-Benzenedicarboxylic acid, dioctyl ester</td>
<td>5000 lbs.</td>
</tr>
</tbody>
</table>

Section 311/312 (40 CFR 370):

<table>
<thead>
<tr>
<th></th>
<th>Acute (Immediate)</th>
<th>Chronic (Delayed)</th>
<th>Fire</th>
<th>Reactive</th>
<th>Pressure Generating</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Section 313 Toxic Release Inventory (40 CFR 372):

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorvos</td>
<td>62-73-7</td>
<td>9.6</td>
</tr>
</tbody>
</table>


Pesticide Chemical Tolerances (40 CFR 180, Subpart C): Dichlorvos

U.S. EPA PC Code: 084001

EPA Toxicity Class: Dichlorvos: 1

State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): Dichlorvos-Carcinogen;

Massachusetts Right-To-Know List: DDVP-Neurotoxin; Talc; di-n-octyl phthalate

Minnesota Hazardous Substances List: Dichlorvos (DDVP)-Skin designation; Talc (nonasbestiform, respirable and fibrous);

New Jersey Right-To-Know List: Dichlorvos-Substance No. 0674; Gum arabic; PVC (Chloroethylene, polymer); Talc; 1,2-Benzenedicarboxylic acid, dioctyl ester

Pennsylvania Right-To-Know List: Phosphoric acid, 2, 2-Dichloroethenyl dimethyl ester, Talc; 1,2-Benzenedicarboxylic acid, dioctyl ester;

Rhode Island Right-To-Know List: Dichlorvos-T-Skin; Tale (powder or fibrous)

European Regulations

Switzerland Toxins List 1: Dichlorvos: Toxicity Category: 2; Di-n-octyl phthalate: Toxicity Category: 2

Denmark MAL Code: Polyvinylchloride: 0 m³ / 10g substance

United Kingdom: Dichlorvos: Schedule 1; Annual reported level threshold is 10 kilograms; Releases to water: Annual reporting level threshold is 0.5 grams; Releases to sewer: Annual reporting level threshold is 0.5 grams.
16 OTHER INFORMATION

Hazard Ratings

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<th>Health Hazard</th>
<th>Fire Hazard</th>
<th>Reactivity Hazard</th>
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</table>

*- Chronic health effect; 0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe

For Dichlorvos:

T- Toxic
N- Dangerous to the environment
R24/25 – Toxic in contact with skin and if swallowed.
R26 – Very toxic by inhalation.
R43 – May cause sensitization by skin contact.
R50 – Very toxic to aquatic organisms.
S1/2 – Keep locked up and out of reach of children
S28- After contact with skin, wash immediately with plenty of water.
S36/37 – Wear suitable protective clothing and gloves.
S45 – In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S62 – If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

ABBREVIATIONS:
BIV - Boehringer Ingelheim Vetmedica, Inc.
AIHA- American Industrial Hygiene Association
mppcf – million particles/cubic foot
N/A - Not applicable
N/E - Not established

References:
1. ATGARD® C Swine Wormer MSDS. Boehringer Ingelheim Vetmedica, Inc, 3/21/05.
6. 49 CFR 171.4(c)
7. GHS Manual
10. PAN Pesticide Database – Chemicals. www.pesticideinfo.org/Detail_Chemical.jsp?Rec_Id=PC33362
11. RTECS – Dichlorvos. RTECS No. TC0350000.

Revision Information: Updated all sections of the MSDS for ANSI, GHS and OSHA Compliance.
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Issue Date: 06/22/07
Supercedes Date: 8/21/06
Revisions: Updated entire document

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